What is claimed is:

1. A method for rendering a digital ink stroke, comprising the steps of:

receiving a first pen tip instance;

receiving a second pen tip instance; and

determining a quadrangle based on the first and second pen tip instances.

2. The method of claim 1, further including the step of displaying a representation of the first pen tip instance, the second pen tip instance, and the quadrangle.

3. The method of claim 1, wherein the first and second pen instances each are associated with data representing at least one of a size, shape, and rotation of the respective pen tip instance.

4. The method of claim 1, wherein the step of determining the quadrangle includes determining the quadrangle to connect the first pen tip instance to the second pen tip instance.

5. The method of claim 4, wherein the first pen tip instance is a circle, the step of determining including determining two sides of the quadrangle to each be a tangent of the circle.

6. The method of claim 4, wherein the first pen tip instance is a rectangle, the step of determining including determining two sides of the quadrangle to each have one endpoint at a corner of the rectangle.

7. The method of claim 6, wherein the rectangle is a square.

8. The method of claim 4, wherein the first pen tip instance is a triangle, the step of determining including determining two sides of the triangle to each have one endpoint at a corner of the triangle.

9. The method of claim 4, wherein the first pen tip instance is a polygon, the step of determining including determining two sides of the quadrangle to each have one endpoint at a corner of the polygon.

10. The method of claim 1, wherein the digital ink stroke is opaque.

11. A method for rendering a digital ink stroke, comprising the steps of:

receiving a first pen tip instance;

receiving a second pen tip instance; and

determining a region connecting the first and second pen tip instances.

12. A method for rendering a digital ink stroke, comprising the steps of:

receiving a first pen tip instance;

receiving a second pen tip instance; and

determining a plurality of quadrangles based on the first and second pen tip instances.

13. The method of claim 12, further including the step of displaying a representation of the first pen tip instance, the second pen tip instance, and the plurality of quadrangles.

14. The method of claim 12, wherein the first pen tip instance is a rectangle, the step of determining including determining two sides of each of the plurality of quadrangles to each have one endpoint at a corner of the rectangle.

15. The method of claim 12, further including the step of determining a union of the plurality of quadrangles.

16. An apparatus for dynamically rendering a digital ink stroke, the apparatus coupled to a graphics toolbox, the apparatus comprising:

a first portion for receiving first and second pen tip positions;

a second portion coupled to the first portion and configured to generate a first pen tip instance associated with the first pen tip position, a second pen tip instance associated with the second pen tip position, and a quadrangle connecting the first and second pen tip instances, and to forward the first pen tip instance, the second pen tip instance, and the quadrangle to the graphics toolbox.

17. The apparatus of claim 16, further including:

the graphics toolbox, wherein the graphics toolbox is coupled to the second portion and configured to fill the first pen tip instance, the second pen tip instance, and the connecting quadrangle; and

a display coupled to the graphics toolbox and configured to display the filled first pen tip instance, the filled second pen tip instance, and the filled connecting quadrangle.

18. The apparatus of claim 16, wherein the first portion comprises a pen input device and the second portion comprises a contour generator.

19. A method for smoothing a digital ink stroke, comprising the steps of:

determining a width of the digital ink stroke at a plurality of sampling locations; and

smoothing the width of the digital ink stroke based on the plurality of sampling locations.

20. The method of claim 19, wherein the step of determining includes determining a plurality of pen tip instances at each sampling location, each pen tip instance having an associated size, the width at each sampling location depending upon the size of the respective pen tip instance.

21. The method of claim 20, wherein the step of smoothing includes smoothing using a least-squares algorithm.

22. A method for smoothing a digital ink stroke, comprising the steps of:

determining a plurality of pen tip instances of the digital ink stroke, each of the pen tip instances having an associated rotation; and

smoothing the rotations of the plurality of pen tip instances.

23. The method of claim 22, wherein the step of smoothing includes smoothing using a least-squares algorithm.